

OWNER'S GUIDE

10 CENTS

MODEL NOS.

121-280 (RECOIL START)

121-282 (ELECTRIC START)

SELF-PROPELLED ROTARY MOWER

WARRANTY

For one year from date of purchase, MTD Products Inc., will replace for the original purchaser, free of charge, F.O.B. factory or authorized service firm, any part or parts found to be defective in material or workmanship. All transportation charges on parts submitted for replacement under this warranty must be paid by the purchaser. This warranty does not include replacement of parts which become inoperative through misuse, excessive use, accident, neglect, improper maintenance or alterations by unauthorized persons. This warranty does not include the engine, motor, battery, battery charger or any component parts thereof. For service on these units refer to the applicable manufacturer's warranty.

The above warranty will apply only to the original owner and will be effective only if the warranty card has been properly processed. It will not apply where the unit has been used commercially.

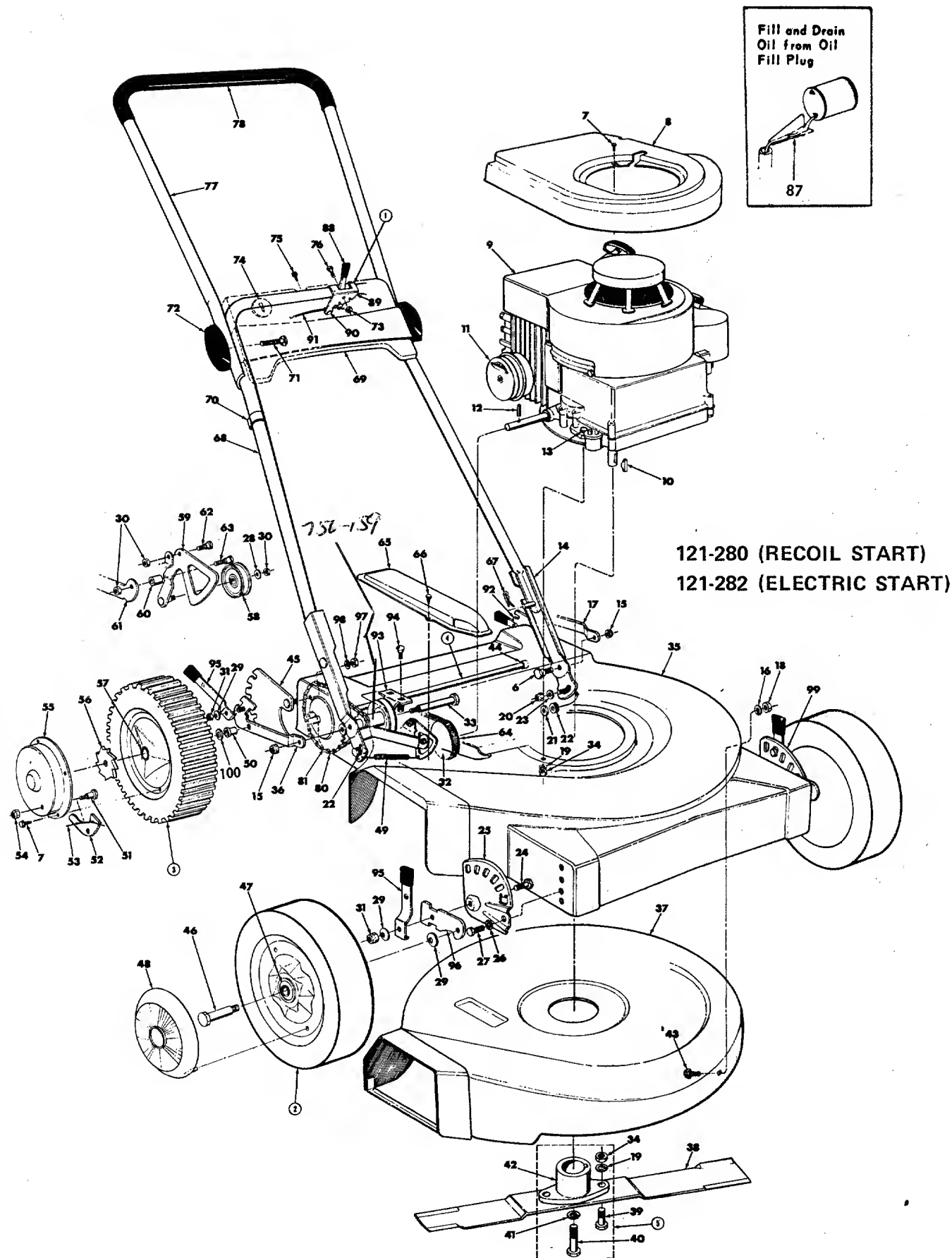
Warranty service is available through your local authorized service dealer or distributor. UNDER NO CIRCUMSTANCES WILL THE RETURN OF A COMPLETE UNIT BE ACCEPTED BY THE FACTORY UNLESS PRIOR WRITTEN PERMISSION HAS BEEN EXTENDED.

SAFETY RULES

Your rotary mower is a precision piece of power equipment, not a plaything. Therefore exercise extreme caution at all times.

1. Remove all sticks, stones, wire and other hazardous items from lawn before mowing. Such items are dangerous to both the mower and individuals in the vicinity of the mower.
2. Always disconnect spark plug cable during repairs or refueling operations.
3. Always start engine from side opposite discharge chute.
4. NEVER place hands or feet under mower or near discharge chute while engine is running.
5. Do not tilt mower at extreme angle while engine is running. Cut grass on hills and banks sideways, not up and down.
6. Always stop engine when not cutting grass.
7. Do not fill gas tank while engine is running. Do not spill gasoline on hot engine.
8. Keep children and pets away from area at all times during mowing operation. Never allow mower to discharge grass toward any person.
9. Do not attempt to start engine while mower is resting in high grass.
10. Check all nuts and bolts, particularly the blade bolts, for tightness. This is especially important during the initial operation period. Make this same check periodically thereafter.
11. While operating the mower, if any foreign object is struck, stop the mower and inspect for damage. Do not restart or operate the mower until all damage has been repaired.

WARNING: Should excessive vibration develop, check your blade and crankshaft immediately. Do not operate mower with an unbalanced blade, a damaged blade or a damaged crankshaft.



PARTS LIST FOR MOWER MODELS NO. 121-280 and 121-282

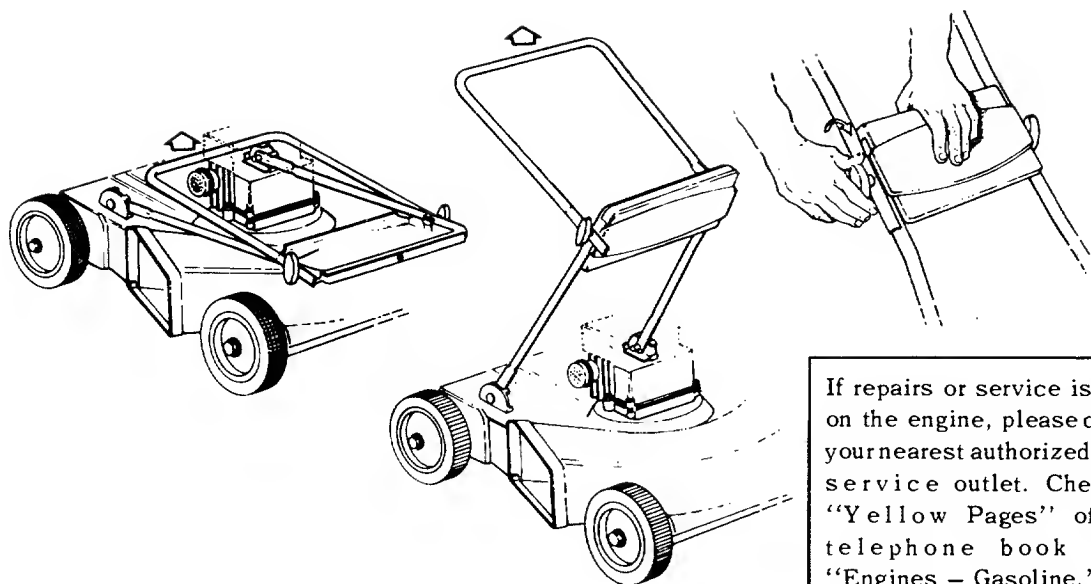
Ref. No.	Part No.	DESCRIPTION	Ref. No.	Part No.	DESCRIPTION
1	901-10033	Throttle Control — Complete	50	748-142	Flange Bearing
2	513-9382	Front Wheel Assembly — Complete	51	738-137	Shoulder Bolt — Special
3	503-9392	Rear Wheel Assembly — Complete	52	748-188	Pawl — Rear Wheels
4	310-10646	Rear Axle Assembly	53	305-10622	Nylon Spring
5	901-10769	Blade Adapter Kit/Less Blade	54	712-219	Hex Elastic Stopnut 1/4—20 Thd.
6	710-334	Shoulder Bolt 6-1/4" Lg. x 3/8" Dia.	55	310-10647	Rear Wheel Hub Cap
7	710-404	Slotted Hex Washer Head Ext. Scw. #8—32 x 1/2" Lg.	56	748-187	Ratchet — Rear Wheel
8	437-10611	Engine Shroud (121-280 and 121-282)	57	748-125	Sintered Bearing — Rear Wheel
9	-----	Engine	58	756-111	Idler Pulley
10	714-365	Hi Pro Key #505—5/8 Dia. x 3/16 †	59	310-10652	Cam Assembly
11	310-9278	Exhaust Deflector	60	750-122	Sleeve
12	715-120	Spiral Pin 3/16 Dia. x 1" Lg.	61	438-10650	Pivot Arm Assembly
13	710-158	Hex Hd. Cap Scw. 5/16—24 x 1-1/4" Lg.*	62	711-118	Shoulder Bolt — Special
14	310-10627	Left Hand — Handle Extension Ass'y.	63	711-105	Shoulder Bolt — Special
15	712-429	Hex Elastic Stopnut 5/16—18 Thd.	64	754-114	"V" Belt 1/2 x 24" Lg.
16	736-119	Spring Lockwasher 5/16 Screw *	65	438-10645	Belt Guard Cover
17	310-10638	Rear Height Pivot Bracket Ass'y.—L. H.	66	710-224	Hex Hd. Self Tap Scw. #10 x 1/2" Lg. *
18	712-123	Hex Nut 5/16—24 Thd. *	67	714-104	Hairpin Cotter
19	736-119	Spring Lockwasher 5/16 Scw. †*	68	310-10008	Lower Handle
20	712-372	Hex Center Locknut 5/16 Thd. *	69	437-9998	Handle Panel (121-280)
21	736-159	Flat Washer *		437-10001	Handle Panel (121-282)
22	736-155	Rubber Washer	70	746-128	Cable Clip
23	736-159	Flat Washer *	71	710-405	Curved Hd. Scw. 5/16—18 x 1-3/4" Lg.
24	710-297	Weld Bolt — Special	72	305-9966	Knob — Handle Assembly
25	310-10642	Index Plate — R.H. — Front	73	712-107	Hex Center Locknut 1/4—20 Thd. *
26		Part of Ref. No. 27	74	**	Key and Lock (Briggs & Stratton)(121-282)
27	710-209	Sems Hex Hd. Cap Scw. 3/8—16 x 5/8" Lg.*	75	710-407	Slotted Hex Washer Hd. Ext. Screw #—32 x 1/2" Lg.
28	736-159	Flat Washer *	76	710-606	Hex Hd. Cap Scw. 1/4—20 x 1-1/4" Lg. *
29	736-105	Belleville Washer	77	310-10011	Upper — Handle
30	712-372	Hex Center Locknut 5/16—18 Thd. *	78	718-143	Grip
31	712-214	Elastic Locknut 3/8—24 Thd.	79	714-115	Cotter Pin 1/8"Dia. x 1"Lg. * (Not Shown)
32	756-115	Pulley — For P.T.O.	80	713-145	Roller Chain #35 x 18.375 Lg.
33	738-136	Shoulder Bolt Special	81	713-139	Master Link for #35 Chain
34	712-123	Hex Nut 5/16—24 Thd. +*	82	725-145	Wire Harness (121-282—Not Shown)
35	438-10630	Upper Deck Ass'y.(121-280)	84		Battery Pack (121-282—Not Shown)
	438-10	Upper Deck Ass'y.(121-282)	85	**	Battery (Briggs & Stratton)(Not Shown)
36	310-10639	Rear Height Pivot Bracket Ass'y.—R.H.	86	**	Charger (Briggs & Stratton)(Not Shown)
37	438-10628	Lower Deck Assembly	87	312-7299	Oil Fill Trough
38	312-8125	Blade 22"	88	305-7470	Knob — Throttle Control ††
39	710-117	Hex Hd. Cap Scw. 5/16—24 x 1" Lg. Heat Treated †	89	310-9848	Throttle Control Bracket Ass'y. ††
40	710-459	Hex Hd. Cap Scw 3/8—24 x 1-1/2"Lg. Heat Treated †	90	901-7627	Ferrule Assembly ††
41	736-217	Spring Lockwasher 3/8 Scw. Heavy Duty†	91	732-139	Conduit and Wire ††
42	748-189	Blade Adapter †	92	310-10409	Index Plate — Rear — L.H.
43	710-260	Carriage Bolt 5/16—18 x 5/8" Lg. *	93	438-10644	Bracket
44	748-142	Flange Bearing	94	710-260	Carriage Bolt 5/16—18 x 5/8" Lg.
45	310-10408	Index Plate Rear — R.H.	95	310-10530	Spring Lever Ass'y. w/Knob
46	738-213	Axle Bolt	96	310-7492	Pivot Bar
47	305-7006	Fortiflex Bearing — Front Wheel	97	712-267	Hex Nut 5/16—18 Thd. *
48	305-9871	Front Wheel Hub Cap	98	736-119	Spring Lockwasher 5/16 Scw. *
49	732-157	Spring	99	310-10641	Index Plate — L.H. — Front
			100	736-192	Flat Washer 1/2 Screw *
			101	736-116	Flat Washer Used on L.H. Shoulder Bolt Ref. No. 6 (Not Shown)

* For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as show on the parts list.

** Parts and service available through your local Briggs and Stratton service dealer.

† Part of Blade Adapter Kit/Less Blade 901-10769

†† Part of Throttle Control Complete 901-10033.



If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines - Gasoline."



ASSEMBLY INSTRUCTIONS

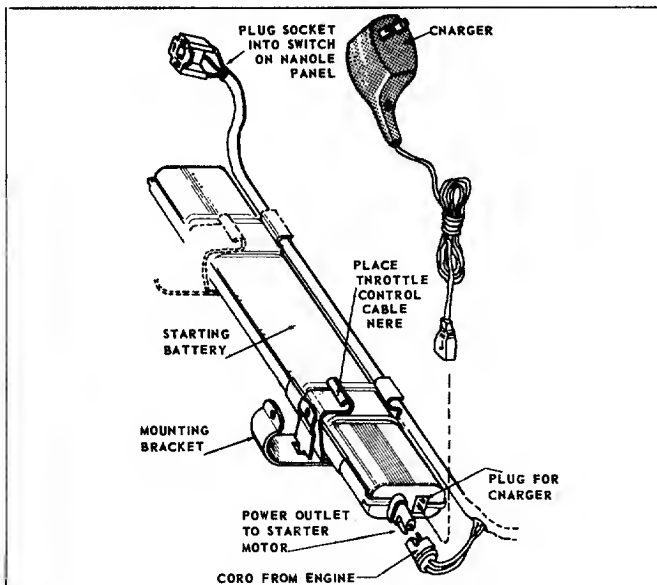
NOTE: This instruction manual covers various models and all accessories shown do not necessarily apply to your model mower.

ASSEMBLY

Electric Start Models Only.

After unfolding the handle follow these steps to install the power pack battery.

1. Assemble the two brackets to the right hand side of the lower handle.
2. The battery snaps into the two brackets. The plug end of the battery should point towards the ground.
3. Plug the cord from the engine to the power outlet on the battery.
4. Plug the three hole socket into the switch on the handle panel.
5. It is not necessary to unplug the cord or remove the battery from the lawn mower when charging the battery.
6. The battery must be charged 14-16 hours prior to initial use.



BATTERY CARE

1. To completely charge a discharged battery it takes 14-16 hours.
2. Recharge on ordinary 110-120 Volt, 60 cycle house current.
3. Battery may be recharged on lawn mower or removed if more convenient.
4. Charger will not overcharge or damage battery if left on for an extended period.
5. ALWAYS REMOVE THE CHARGER PLUG FROM THE BATTERY BEFORE REMOVING THE CHARGER FROM THE HOUSE CURRENT.
6. REMOVE IGNITION KEY AND KEEP IN A DIFFERENT LOCATION WHENEVER LAWN MOWER IS NOT IN USE TO PREVENT ACCIDENTAL STARTING.

OPERATION

1. Service engine with gas and oil. See engine manual packed with lawn mower for complete instructions for care and maintenance of engine. READ DIRECTIONS CAREFULLY.
2. To disconnect the power to the rear drive wheels so the mower can be pushed by hand, depress the handle. To engage the drive wheels, lift the handle.
3. When turning the mower depress the handle and raise the front wheels, and pivot on the rear wheels. The differential action of the rear axle allows the wheels to turn independently on turns and allows both wheels to drive when the handle is in the UP position.

START ENGINE

With the throttle control lever conveniently mounted on the handle, start, fast, slow and stopping of the engine is conveniently controlled with one lever.

After the engine has been properly fueled and oiled (Refer to engine operating and maintenance instructions), start engine in the following manner.

RECOIL STARTER

1. Move throttle control lever to START position.
2. Crank engine. Pull recoil until starter drive engages and then with a quick firm pull. Do not pull out so far that rope stops with a jerk as this will cause rope failure. Do not allow rope and handle to snap back into place.
3. After two or three full firm pulls on recoil, move speed control to run position or as soon as engine fires.
4. Operate a new engine at intermediate speeds and light load for the first few hours as you would a new automotive engine.
5. To stop engine, move speed control lever to stop position.
6. If carburetor needs adjustment to start or for operation, see "Carburetor Readjustment" section.

ELECTRIC START

1. Move throttle control to start position.
2. Insert the key and turn clockwise until the engine starts.
3. To start the engine manually, remove the plastic cap from the flywheel, wrap a short piece of rope around the starter pulley, set the throttle control in the start position and pull the rope to start.
4. Operate a new engine at intermediate speeds and light load for the first few hours as you would a new automotive engine.
5. To stop engine, move speed control lever to stop position.
6. If carburetor needs adjustment to start or for operation, see "Carburetor Readjustment" section.

NOTE: A brief break in period is essential to insure maximum engine life. This consists of running the engine at half speed for a period of time required to use one tank of gasoline. This is necessary on the initial run only. It is also recommended that the oil be changed after five (5) hours of operation. This allows for the removal of impurities which may have accumulated during the break in period. Subsequent oil changes should be made as stated in the engine manual. Always check oil before using your mower. Be sure crankcase is full.

ADJUSTMENTS

CAUTION: Do not at any time make any adjustment to lawn mower without first stopping engine and disconnecting spark plug wire.

1. **CUTTING HEIGHT** - This mower can be adjusted for seven cutting heights from 1" to 3". To change the height, move the height adjustment lever away from the engine and forward to lower the cutting height and move to rear to raise the cutting height. The one lever adjusts all four wheels at the same time.



2. **BELT** - The belt requires no adjustment. The idler maintains the proper tension on the belt at all times.
3. The position of the upper handle can be changed so the end of the handle turns down instead of up to place it in the most comfortable position for the operator.
4. **THROTTLE** - If adjustment becomes necessary, the throttle control wire assembly can be reset as follows:
 1. Loosen, but do not remove, screw securing throttle control wire assembly at engine.
 2. Move throttle control lever on handle to "Fast" position.
 3. Move lever, to which control wire is fastened at engine, to full open position and retighten screw to secure throttle control wire assembly.

USING YOUR ROTARY MOWER

For the best results do not cut wet grass because it tends to stick to the underside of the mower thus preventing, proper discharge of grass clippings. If wet grass must be cut, reduce engine speed and walking speed to help distribute the clippings more effectively.

New grass should be treated as wet grass, otherwise a normal walking speed is about the right pace for efficient mowing. The best mowing pattern is one that allows the clippings to discharge towards the uncut part of the lawn. This permits recutting of the clippings to further pulverize them. When cutting high weeds, discharge towards cut portion then re-cut at right angles to first direction.

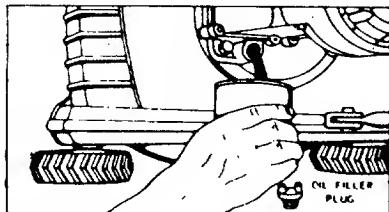
Lawn should be cut in the fall as long as there is growth.

LUBRICATION

Important: Always stop engine and disconnect spark plug wire before cleaning, lubricating or doing any kind of work on lawn mower.

1. **ENGINE** – Follow Engine Manual for lubrication instructions.

NOTE: FILL AND DRAIN OIL FROM OIL FILL PLUG.



Always disconnect spark plug cable during repairs refueling or changing oil.

Engine oil may be drained through oil filler opening by tilting the mower on its side. Change oil after first 5 hours of operation while engine is warm. Thereafter, change oil every 25 hours of operation while engine is warm.

2. **CHAIN** – Lubricate periodically with light engine oil (S.A.E. No. 10 or 20)
3. **CONTROLS** – Lubricate periodically the control assemblies and conduit and wire with light engine oil for ease of operation.
4. **WHEELS** – Lubricate periodically bearings on front wheels with light engine oil. Rear bearings require no lubrication.

NOTE: The rear wheel bearings are Tarrington roller clutch bearings. These bearings turn only one direction so care should be taken when replacing or removing the rear wheels since they are not interchangeable. The bearings are permanently lubricated and require no additional lubrication.

CUTTING BLADE – The blade may easily be removed for grinding or replacement as follows:

1. Remove bolt and lock washer holding blade, anti-scalp plate and hub assembly to engine crankshaft.
2. Remove blade and hub assembly from engine crankshaft.
3. Remove two bolts, lock washers and nuts holding blade and anti-scalp plate to blade hub.

When sharpening blade, follow the original angle of grind as a guide. It is extremely important that each cutting edge receives an equal amount of grinding to prevent an unbalanced blade. An unbalanced blade will cause excessive vibration when rotation at high speeds and may cause damage to the mower.

Upon reassembly, make certain all parts are assembled properly and tightened securely.

DECK – The underside of mower deck should be cleaned after each period of use as grass clippings, leaves, dirt and other matter will accumulate. This accumulation of grass clippings, etc., is undesirable as it will invite corrosion and may cause an uneven discharge of grass clippings at the next cutting.

The deck may be cleaned by tilting the mower forward or on its left side and scraping clean with a suitable tool or washing with a stream of water from a garden hose.

CAUTION: Do not direct the stream of water at a hot engine as damage to the engine may result.

BELT REMOVAL (Refer to drawing on page B)

1. Be sure spark plug wire is removed from spark plug.
2. Remove the belt guard (Ref. No. 65) by removing the two screws on the belt guard.
3. Place a piece of plastic film under gas cap and tighten it. The plastic prevents gasoline from draining from the air vent in the cap.
4. Place the handle of mower on a table or bench so that the underside of deck is showing.
5. Remove cutting blade (Ref. No. 38) by removing blade bolt (Ref. No. 40).
6. Remove deck (Ref. No. 37) by removing four bolts (Ref. No. 43) **NOTE:** If you have a grass catcher adapter plate on your unit remove only one bolt, one towards the front wheels.
7. Remove master link (Ref. No. 81) and chain (Ref. No. 80).
8. Remove rear wheel hub cap (Ref. No. 55) from right hand rear wheel only.
9. Remove cotter pin (Ref. No. 79), ratchet (Ref. No. 56) and right hand rear wheel (Ref. No. 3).
10. Remove spring (Ref. No. 49) from cam assembly (Ref. No. 59).
11. Remove hex nut (Ref. No. 15) from rear axle assembly (Ref. No. 4) on the right hand side only.
12. Remove cotterpin (Ref. No. 79) from axle assembly (Ref. No. 4)
13. Pull idler assembly (Ref. No. 58) toward you and pull belt (Ref. No. 64) over idler
14. Slide axle assembly (Ref. No. 4) to the left.
15. Pull belt down past P.T.O. pulley (Ref. No. 32) and over end of rear axle assembly (Ref. No. 4).
16. To replace with new belt, reverse the above steps.

STORAGE

The following steps should be taken to prepare lawn mower for storage.

1. Clean and lubricate mower thoroughly as described in the preceding instructions.
2. Refer to engine manual for correct engine storage instructions.
3. Coat mower's cutting blade with chassis grease to prevent rusting.
5. Store mower in dry, clean area.